

SMOKED APA v3 #79

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **31**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **19.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.5 liter(s)**
- Boil time **105 min**
- Evaporation rate **10 %/h**
- Boil size **24.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4.77 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **24.2 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **75 C**, Time **7 min**

Mash step by step

- Heat up **20 liter(s)** of strike water to **68.6C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **7 min** at **75C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **24.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|--------|-----|
| Grain | Mep©Ale | 2.2 kg (52.4%) | 82.1 % | 5.5 |
| Grain | Viking - wędzony dębem | 2 kg (47.6%) | 81 % | 10 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------|--------|--------|------------|
| Boil | Warrior | 7 g | 60 min | 14.7 % |
| Aroma (end of boil) | Styrian Golding | 50 g | 15 min | 4 % |
| Aroma (end of boil) | Simcoe | 20 g | 5 min | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------|------|-------|--------|------------------|
| FM54 Gorączka kalifornijska | Ale | Slant | 140 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------|--------|---------|------|
| Water Agent | gips | 2.5 g | Mash | --- |

| | | | | |
|-------------|---------------------|--------|------|-------|
| Water Agent | kwas mlekowy [ml] | 3.9 g | Mash | --- |
| Water Agent | chlorek wapnia [ml] | 2.58 g | Mash | --- |
| Fining | mech irlandzki | 3 g | Boil | 5 min |
| Water Agent | epsom | 2 g | Mash | --- |